

Abstract

Self-Centering Ball and Socket Joint

A self-centering ball and socket joint for connecting parts requiring restricted angular movement in a pre-established direction, and free rotary movement in a corresponding direction. The joint is comprised of a spherical pin (01) with an encased end, and an opposite exposed end. The encased end of the spherical pin (01) is comprised of first (09) and second (10) hemispheres, disposed within a bearing assembly (02, 03). The first hemisphere has a relatively larger diameter (09), than the second hemisphere (10). The hemispheres (09, 10) interact with the bearing assembly (02, 03) to continuously urge the spherical pin (01) to return to a pre-determined position. Although the invention has broad potential applicability, its primary uses are in motor vehicle tie rod steering and suspension systems.